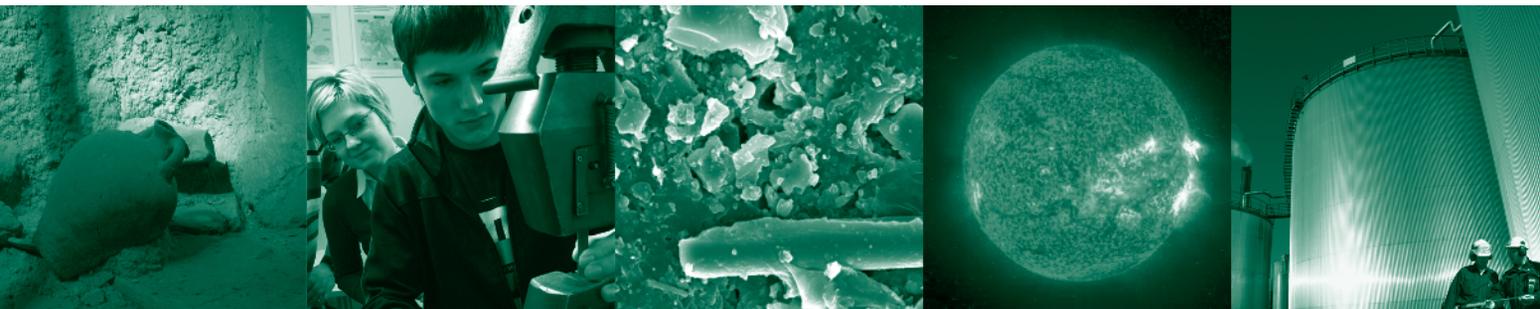




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## It was said...



## BARACK OBAMA

### President of the United States of America

"If there is anyone out there who still doubts that America is a place where all things are possible; who still wonders if the dream of our founders is alive in our time; who still questions the power of our democracy, tonight is your answer.(...) It's the answer spoken by young and old, rich and poor, Democrat and Republican, black, white, Latino, Asian, Native American, gay, straight, disabled and not disabled – Americans who sent a message to the world that we have never been a collection of Red States and Blue States: we are, and always will be, the United States of America.(...) It's been a long time coming, but tonight, because of what we did on this day, in this election, at this defining moment, change has come to America. (...) This is your victory.(...) You did it because you understand the enormity of the task that lies ahead. For even as we celebrate tonight, we know the challenges that tomorrow will bring are the greatest of our lifetime – two wars, a planet in peril, the worst financial crisis in a century. Even as we stand here tonight, we know there are brave Americans waking up in the deserts of Iraq and the mountains of Afghanistan to risk their lives for us. There are mothers and fathers who will lie awake after their children fall asleep and wonder how they'll make the mortgage, or pay their doctor's bills, or save enough for college. There is new energy to harness and new jobs to be created; new schools to build and threats to meet and alliances to repair.(...) The road ahead will be long. Our climb will be steep. We may not get there in one year or even one term, but America – I have never been more hopeful than I am tonight that we will get there. I promise you – we as a people will get there.(...) This is our moment. This is our time – to put our people back to work and open doors of opportunity for our kids; to restore prosperity and promote the cause of peace; to reclaim the American Dream and reaffirm that fundamental truth – that out of many, we are one; that while we breathe, we hope, and where we are met with cynicism, and doubt, and those who tell us that we can't, we will respond with that timeless creed that sums up the spirit of a people: Yes We Can. Thank you, God bless you, and may God Bless the United States of America."

From Barack Obama's Victory Speech at 4<sup>th</sup> November 2008  
in Chicago, USA

# Editorial

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The Pernambuco State is famous for being one of the most beautiful beaches of the Brazilian coast, with warm clear water pools scattered around its coral reefs, estuaries, mangroves, coconut trees and a number of other samples of abundant nature richness. The proximity of the Equator guarantees an entire year of sun, with average temperatures of 26°C. Pernambuco is located in the Northeast region of Brazil. There are about 185 kilometres of Atlantic Ocean beaches, some of the most beautiful in the country. Pernambuco comprises a comparatively narrow coastal zone, a high inland plateau, and an intermediate zone formed by the terraces and slopes between the two. Pernambuco State has the 5<sup>th</sup> highest sugarcane Brazilian production today. The gentle hills covered with great stretches of light green sugarcane, although in some places prepared already for harvest, in others just after harvest, and in others else yet beginning vegetation, make a great impression for a stranger travelling by car to Porto de Galinhas – PE from a modern Recife/Guararapes – Gilberto Freyre International Airport opened in July 2004, as the second largest airport in the North and Northeast regions of Brazil. Brazil is by far the largest producer of alcohol fuel in the world, typically fermenting ethanol from sugarcane and sugar beets. The country produces a total of 18 billion litres annually, of which 3.5 billion are exported, 2 billion of them to the USA. Alcohol-fuelled cars started in the Brazilian market in 1978 and became quite popular. From 2004 on, alcohol is rapidly increasing its market share because of new technologies involving hybrid fuel car engines called "Flex", working with gasoline, alcohol or any mixture of both fuels. As of February 2007, approximately 80% of new vehicles sold in Brazil are hybrid fuel. The economy of the Pernambuco State is based on agriculture (sugarcane and manioc), livestock farming and creations, as well as industry (alimentary, chemical, metallurgical, electronic, textile). In the period of October 2005 to October 2006, the industrial growth of the state was the second biggest in Brazil – 6.3%, more than double the national average in the same period (2.3%). Another segment that deserves to be highlighted is mineral extraction.

Recife is the capital of the Pernambuco State and the fourth largest Metropolitan area in Brazil. The name Recife means "reef" in Portuguese, in allusion to the coral reefs that are present by the city's shores. The heart of Recife is formed by three islands (Recife, Santo Antônio, and Boa Vista) located between the Beberibe River meeting the Capibaribe River to flow into the Atlantic Ocean. The many rivers and bridges found in Recife gives it the moniker of the "Brazilian Venice". Recife, has one of most beautiful urban areas of the country, Boa Viagem. Together with its neighbouring city of Olinda, it is one of the most cosmopolitan cities in the north-eastern part of Brazil. Both have Portuguese architecture, with secular casarões and churches, and kilometres of beaches and much culture. Recife is one of Brazil's prime business centres, largely because it has two ports. One is located in the town itself, and the other, the port of Suape, is located about 40 kilometres away. Recife has an area dedicated to information technology called Digital Port. It was founded in July 2000 and has since attracted major investments. Software manufacturing is the main activity in the Porto Digital. Porto Digital's start-ups can count on a ready pool of talent, courtesy of the Federal University of Pernambuco, which boasts one of the best computer-science departments in all of Latin America.

The Federal University of Pernambuco – UFPE was the main organiser of the 18<sup>th</sup> Brazilian Congress of Materials Engineering and Science – Congresso Brasileiro de Engenharia e Ciência dos Materiais – CBECiMat,



organised biyearly. In the period of 24<sup>th</sup>-28<sup>th</sup> November 2008 in Porto de Galinhas – PE in the Pernambuco State in Brazil yet the 18<sup>th</sup> Congress of that series took place. The President of the Congress was Prof. Severino Leopoldino Urtiga Filho from that University. The Organisers of those Congresses are metallurgical, materials, ceramic and polymer associations such as: Associação Brasileira de Metalurgia e Materiais (ABM), Associação Brasileira de Cerâmica (ABC) e a Associação Brasileira de Polímeros (ABPol), acting in Brazil. The Congress was the important forum for discussions about the perspectives of the development of materials science and the industry of materials engineering and numerous participants in it both the representatives of scientific societies and also the engineering and technical staff of the industry. Each time over 1000 participants from Brazil and also foreign guests usually participate in that Congress. It was the same also this time. I had pleasure and honour to participate in that important scientific event and present a plenary one-hour invited lecture on "Laser surface treatment of the light metals' alloys and tool steels" on Organisers' invitation. Of course, the WAMME Fellow and Vice President – Prof. Maria Helena Robert, under whose supervision the Chairman of the Congress made a PhD thesis a few dozen or so years ago, participated in the Congress. It was a great scientific event. I congratulate the Organisers the success and do count that the best presentations presented there after the suitable outworking can be published in our Journal AMME and on behalf of the Organisers I invite already today to the participation in the next Congress which will take place in two years in Brazil.

As usually I invite PT Readers to the reading of the next issue of Archives MSE, and PT Authors for the preparation of next papers which will be published in the next issues of the Archives. I wish a nice reading.



Prof. Leszek A. Dobrzański M. Dr hc  
Editor-in-Chief of the AMSE  
President of the WAMME  
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Gliwice, in January 2009